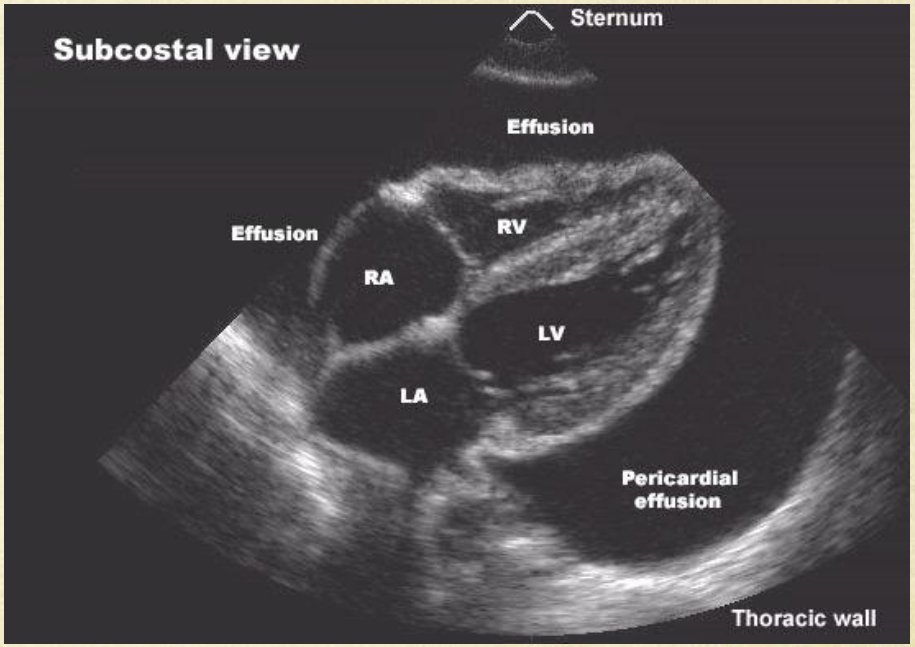
A case of pericardial effusion

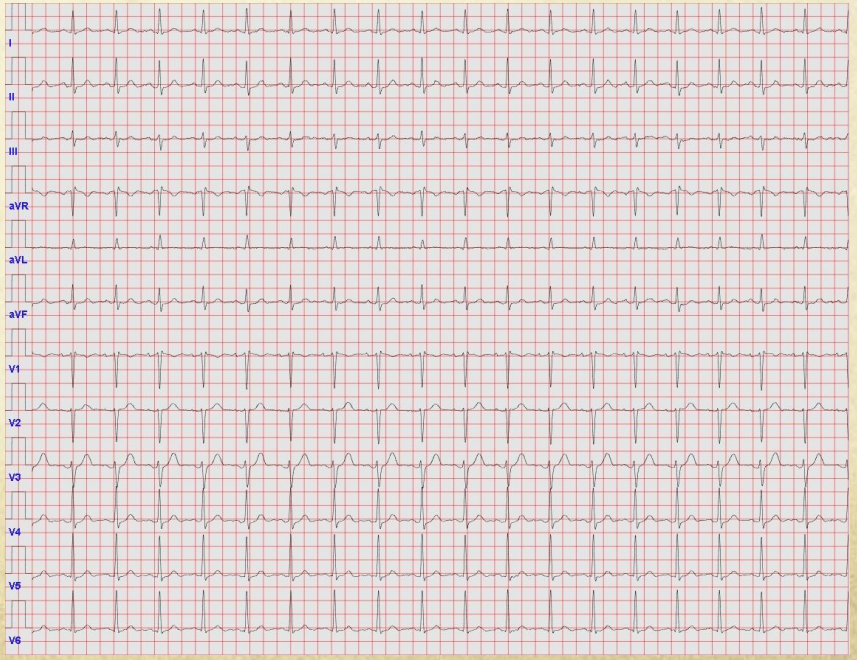


Miguel Pedromingo Kus

Ávila, Spain

Patient history

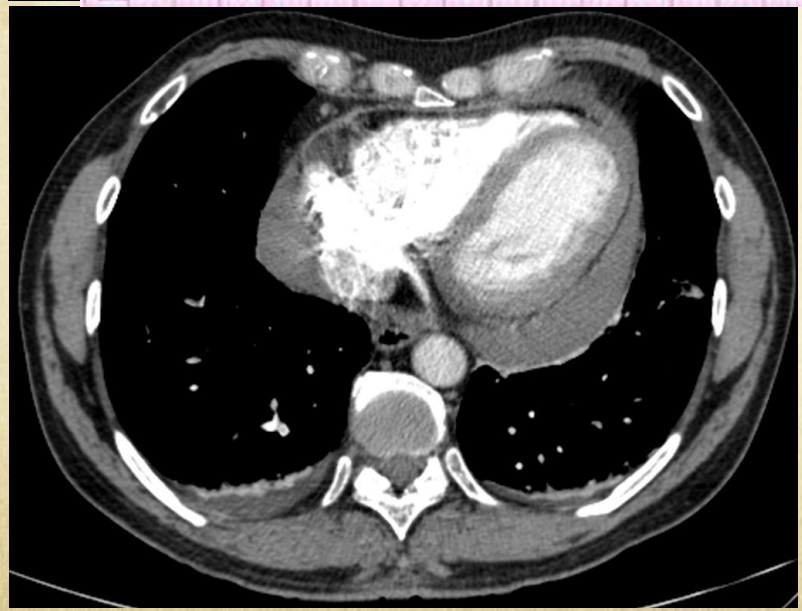
- 50 year old caucasian male.
- Craftwork.
- Sedentary. Rides bicycle. Promenades.
- Ex-smoker.
- No allergies.

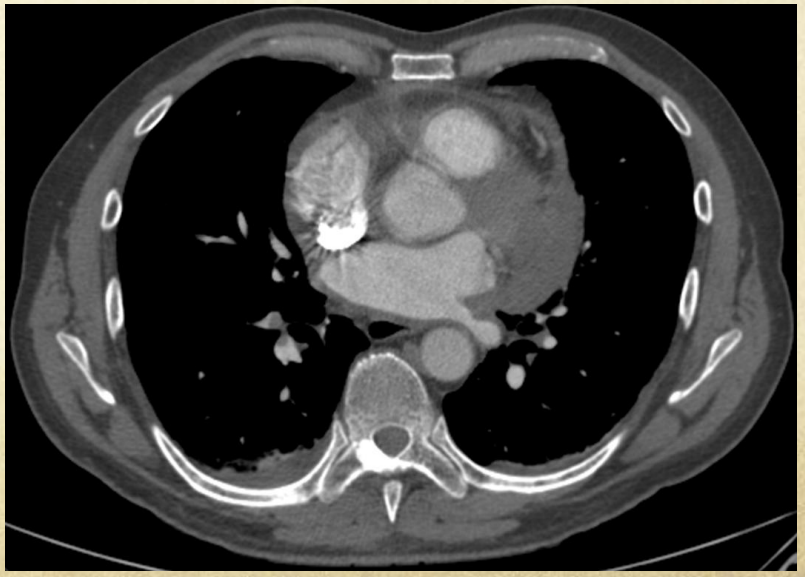


Patient history

- **July 2014**: low back pain: NSAID/8h.
- **October 2014**: EGD
- **August 2015**: Laparoscopy: erosive duodenal ulcer.

May 2015



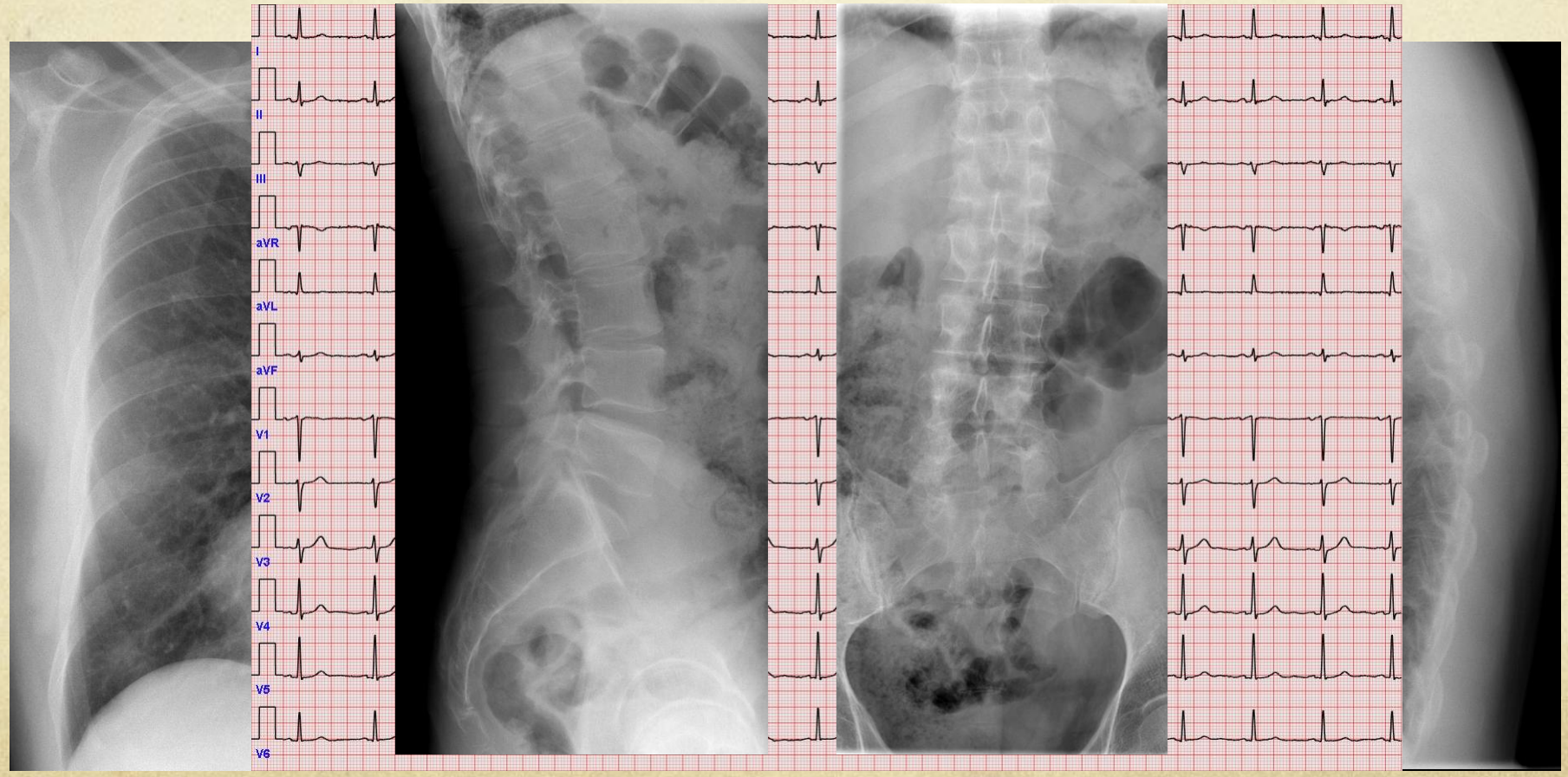


May 2015… Respiratory Medicine

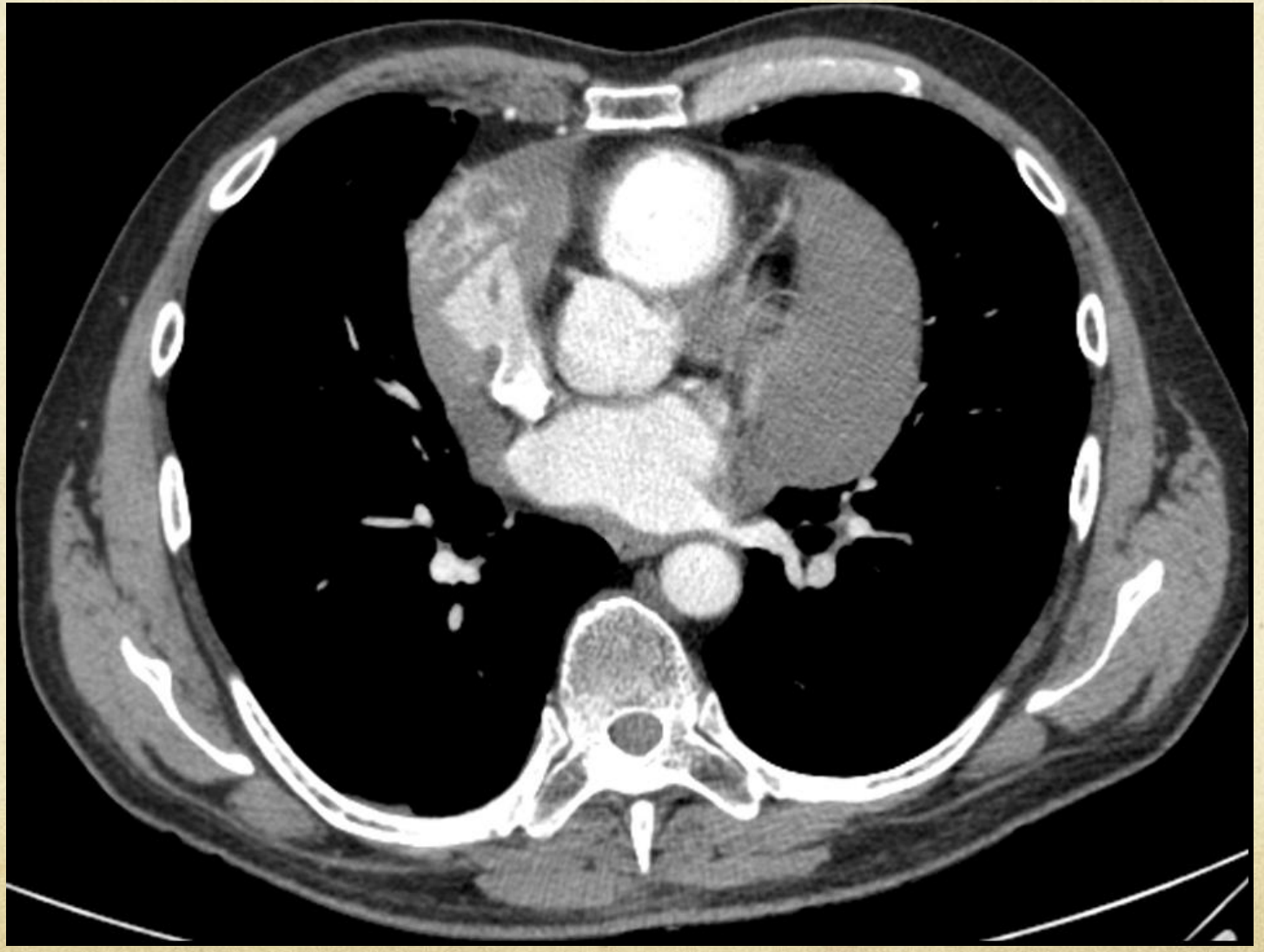
- **TTE** : pericardial effusion.
- **Abdominal Ultrasound**: bilateral pleural effusion.
- **Ultrasound lower extremities**: normal.
- **Cardiology…**: **anticoagulation**? → paroxysmal AF (CHA2DS2-VASC: 0 points) ≡ **PE**.
- **Hematology November 2015:** Negative.
- **Neumology November 2015: STOP Oral AntiCoagulation.**

January 11th 2016

- 4-5 days anterior axilar pain.

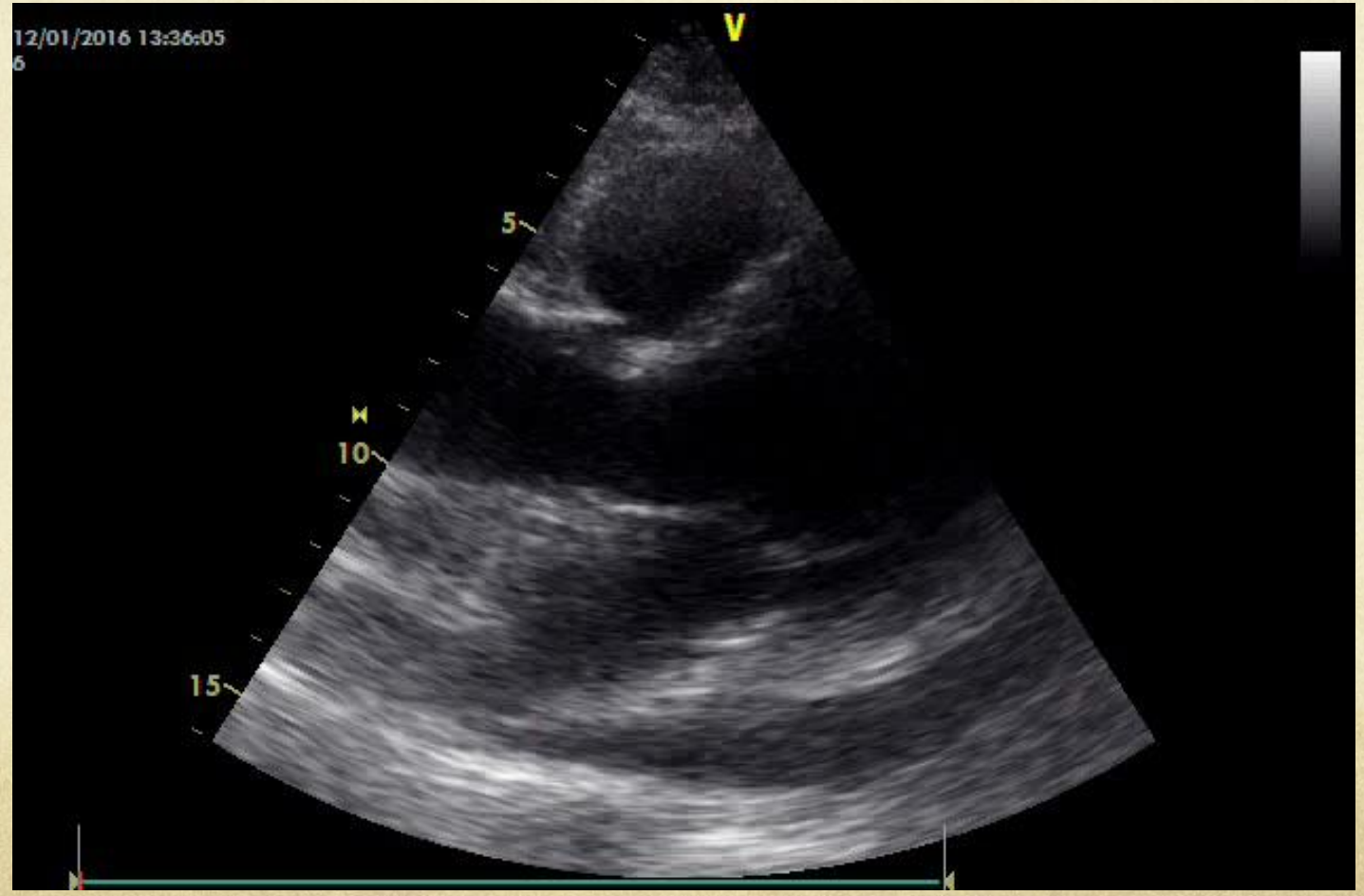


January 11th 2016



Cardiology

- **TTE 12.1.16.**



Cardiology

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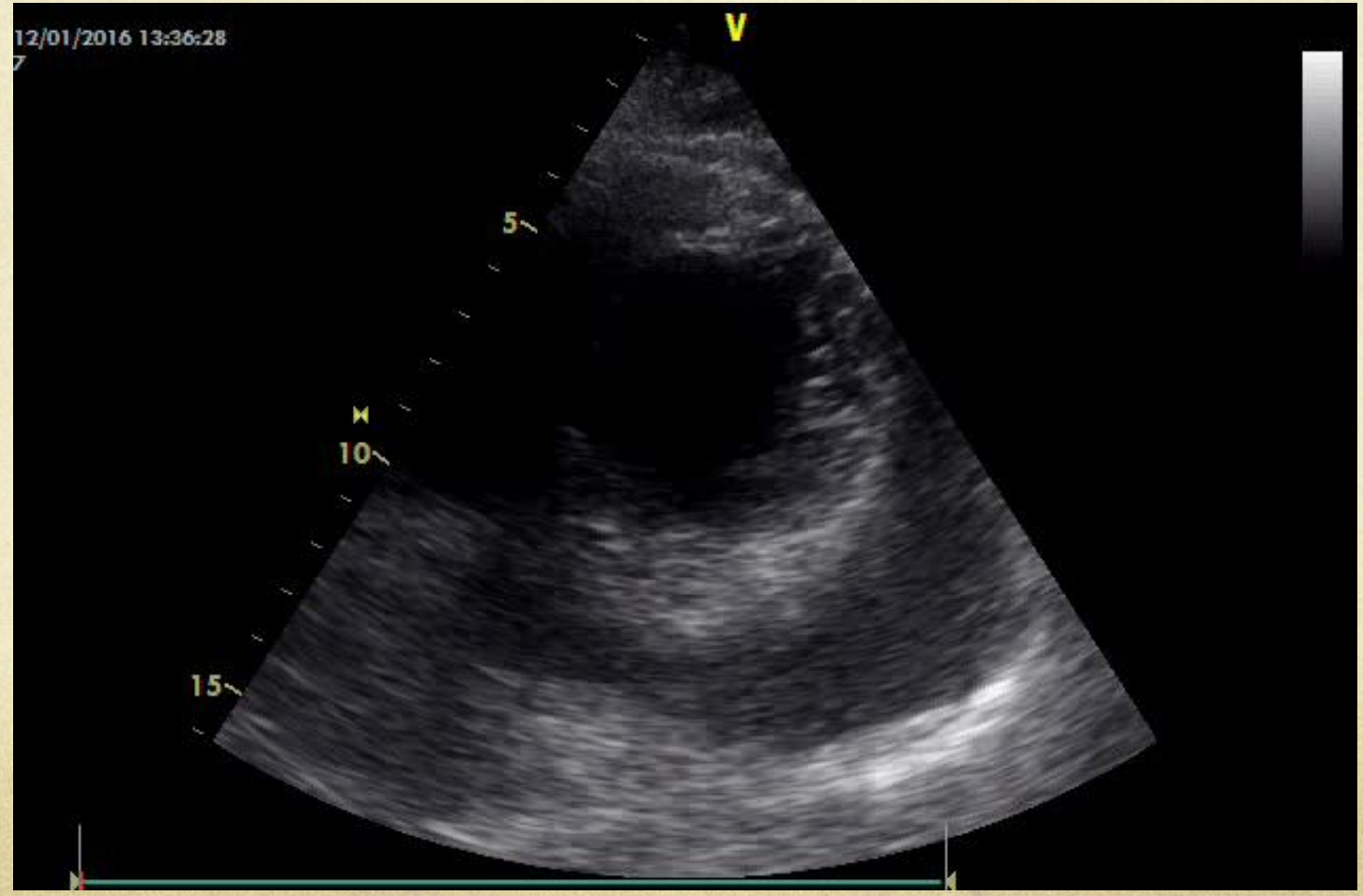

Cardiology

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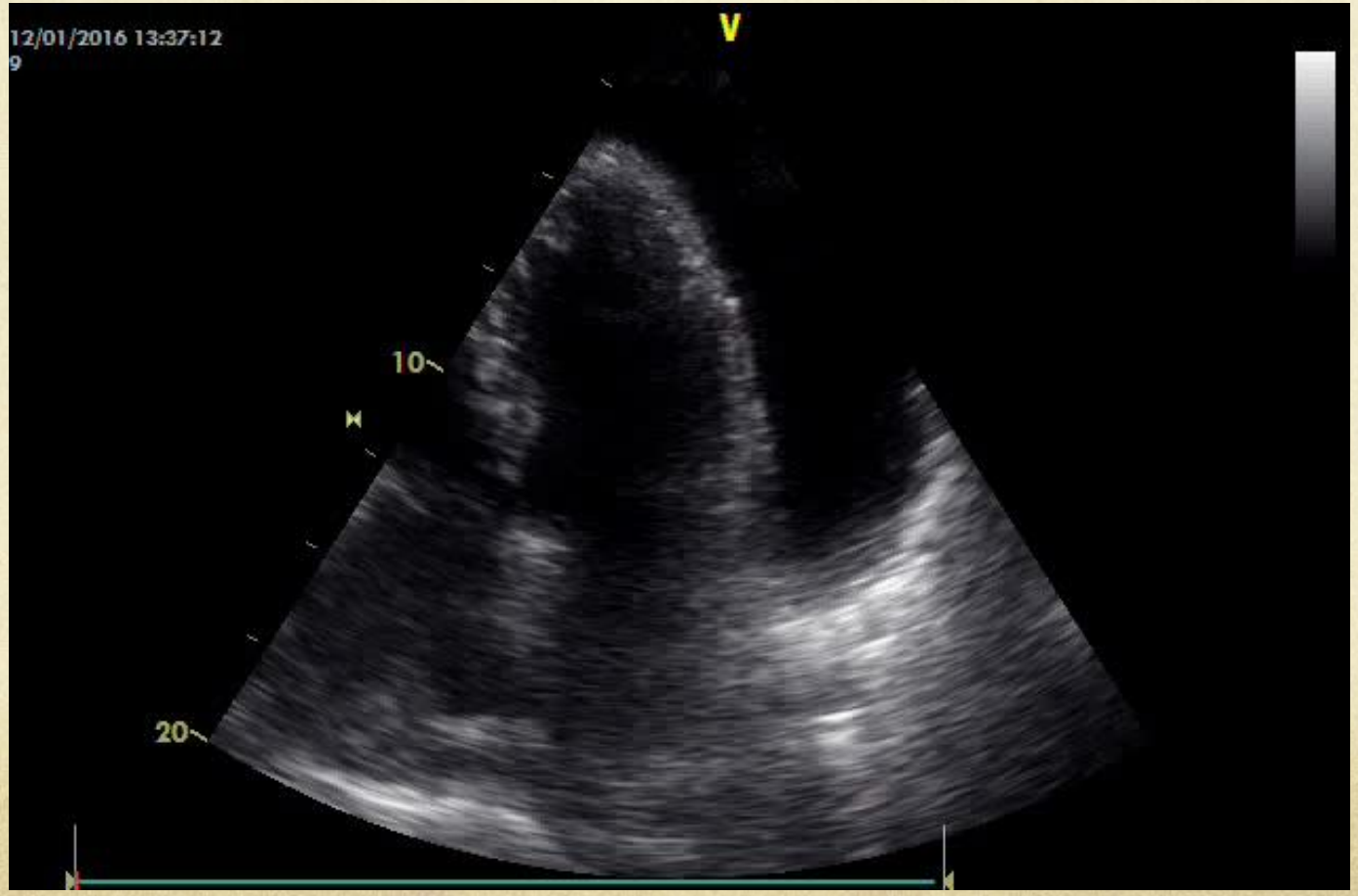
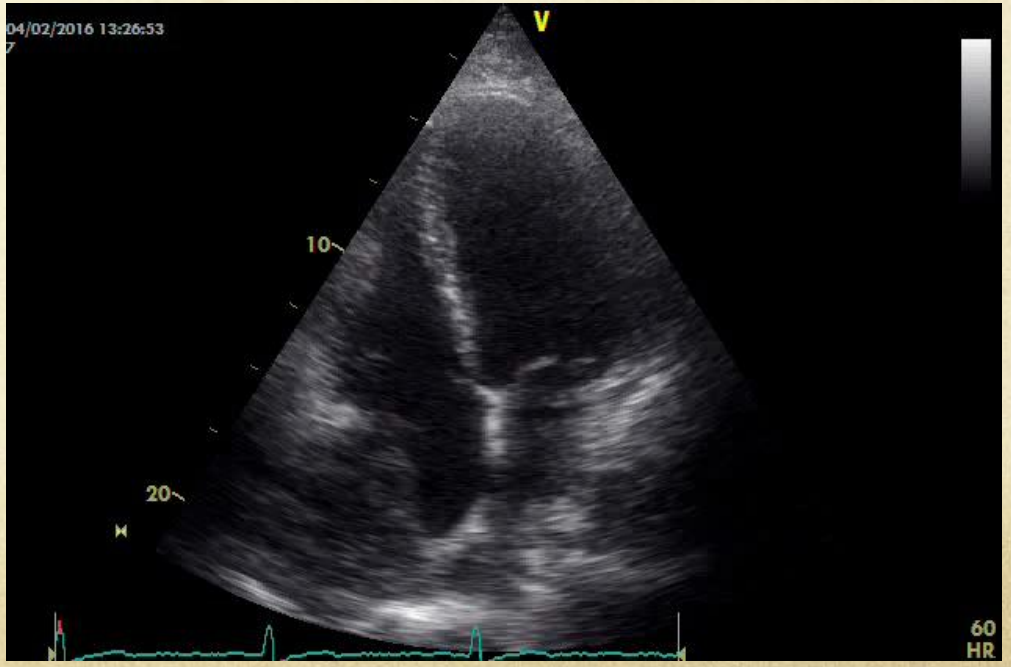


Etiologies of Pericarditis (*Lancet* 2004;363:717)	
Infectious (50%)	Viral: Coxsackie, echo, adeno, EBV, VZV, HIV, influenza Bacterial (from endocarditis, pneumonia, or s/p cardiac surgery): *S. pneumococcus*, *N. meningitidis*, *S. aureus*, *Borrelia* (Lyme) Tuberculous (extension from lung or hematogenous) Fungal: *Histo*, *Coccidio*, *Candida*; Parasitic: *Entamoeba*, *Echino*
Neoplastic (35%)	*Common:* metastatic (lung, breast, lymphoma, leukemia, renal cell) *Rare:* primary cardiac & serosal tumors (mesothelioma)
Autoimmune	Connective tissue diseases: SLE, RA, scleroderma, Sjögren's Vasculitides: PAN, Churg-Strauss, Wegener's Drug-induced: procainamide, hydralazine, INH, CsA
Uremia	Develops in ~20% of Pts, especially if on HD. May be transudative.
Cardiovascular	Acute transmural MI (5–20%); late post-MI (Dressler's syndrome) Proximal aortic dissection (up to 45%) Chest trauma or s/p cardiac procedure or surgery
Radiation	>4,000 cGy to mediastinum; acute or delayed; may be transudative
Idiopathic	Most presumed to be undiagnosed viral
Effusions w/o pericarditis	CHF, cirrhosis, nephrotic syndrome, hypothyroidism, amyloidosis.; Transudative.

Final diagnosis

- **Angiosarcoma:**
  - **AD cardiac tumor**.
  - **Pericardial Effusion**.
  - Bone & Liver **Metastasis (lytic)**.
- **TTE 04.02.16**



Final diagnosis

- **Angiosarcoma:**
  - **AD cardiac tumor**.
  - **Pericardial Effusion**.
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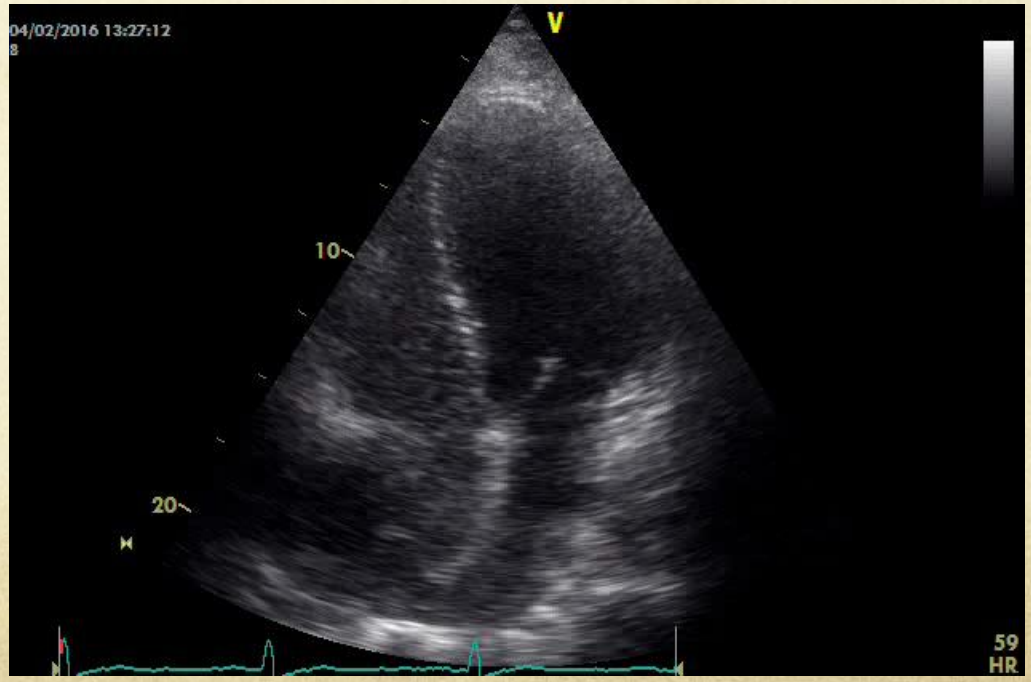
- **TTE 04.02.16**

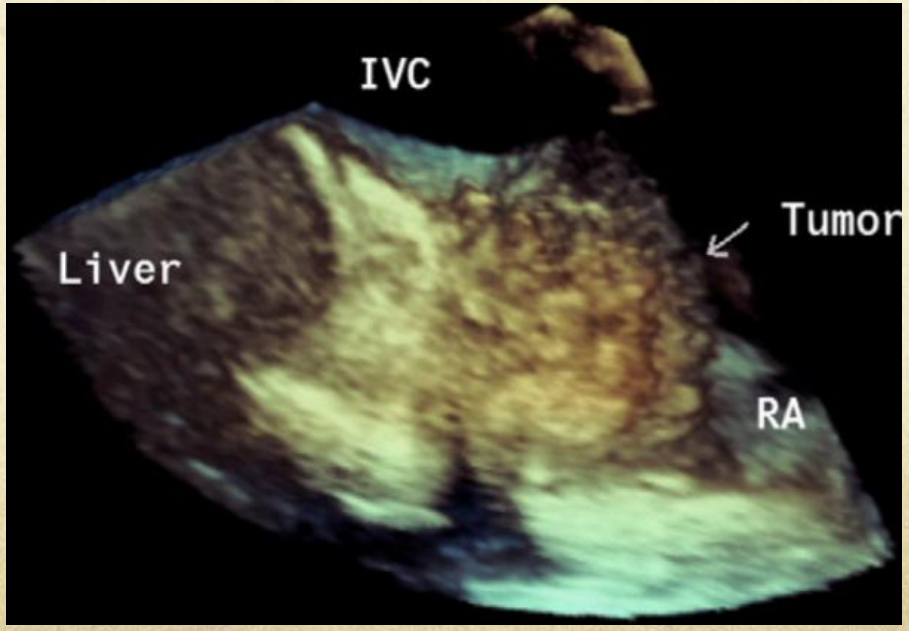


Final diagnosis

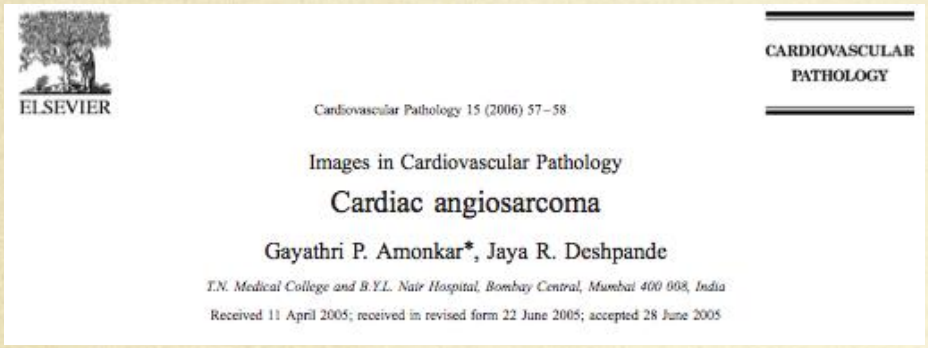
- **Angiosarcoma:**
  - **AD cardiac tumor**.
  - **Pericardial Effusion**.
  - Bone & Liver **Metastasis (lytic)**.
- **TTE 04.02.16**

Primary tumors of the heart

- **Primary tumors of the heart** << x20–40 metastatic lesions (benign > malignant).
- Malignant: **primary sarcomas** 75% (**angiosarcomas**: 15 – 35% of all cardiac tumors).



Primary Cardiac Angiosarcoma



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Cardiovascular Pathology 15 (2006) 57–58

CARDIOVASCULAR PATHOLOGY

Images in Cardiovascular Pathology

Cardiac angiosarcoma

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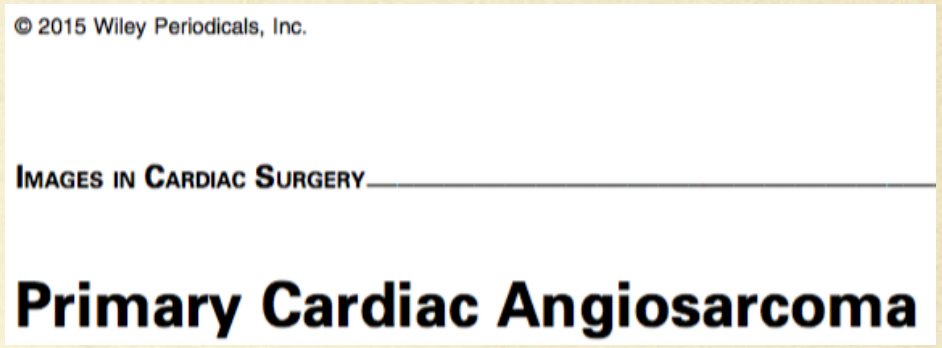
Received 11 April 2005; received in revised form 22 June 2005; accepted 28 June 2005



IMAGES IN CARDIAC SURGERY

Primary Cardiac Angiosarcoma

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Cardiovascular Pathology 19 (2010) e69–e74

CARDIOVASCULAR PATHOLOGY

Case Report

Cardiac angiosarcoma: a case report and review of the literature

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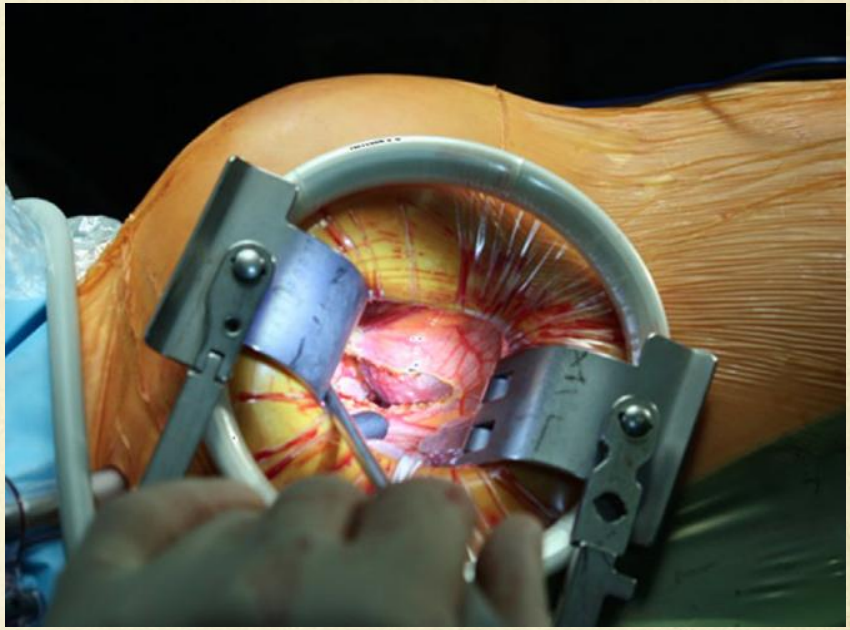
Received 7 July 2008; received in revised form 17 September 2008; accepted 12 October 2008

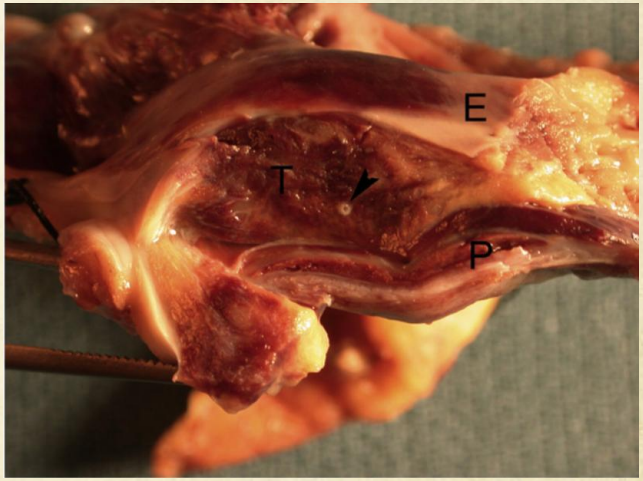
Primary Cardiac Angiosarcoma

- Malignant tumors.
- **Mesenchymal** origin.
- Unclear etiology.
- 3rd – 5th decade of life. Male.
- > 80% → **right atrium**.
- Grow rapidly.
- Occupy the heart and its neighboring structures.
- Presentation: **66-89%**: widespread **metastasis**.



Primary Cardiac Angiosarcoma

- **Treatment** … **palliative** (no treatment guidelines).
- **Prognosis**: quite poor.
- **Survival**: 9 –12 months.
- Importance of **aggressive treatment**.
- Anatomical location of tumor mass.
- Multimodality therapy.



Literature review of patients with nonmetastatic cardiac angiosarcoma

Author	Primary site	Treatment	Survival
Nayar et al. [7]	RA	Sx	Died 3 months after sx
Yildiz et al. [8]	RA, RCA	Sx, chemo	Died 60 days post sx
Kato et al. [9]	Aorta	Sx	18 months up to publication
Park et al. [10]	Pericardium	Chemo	–
Kontogiorgi et al. [11]	RA, pericardium	Sx	Died at sx
Malani et al. [12]	RA	–	–
Smith et al. [13]	RA	–	–
Bhalla et al. [14]	RA	Chemo	–
Alfonso et al. [15]	RA	Chemo, sx, chemo	Well for 2 years after dx
Olsun et al. [16]	RA, RV	Sx, rad, chemo	Well for 13 months after sx
Nurkalem et al. [5]	RA, aorta	Sx, chemo	–
Keeling et al. [17]	RA, TV, aorta	Chemo, sx	Died 5 months after sx
	Heart	–	Autopsy finding
Valeviciene et al. [18]	RA, pericardium	–	–
Sakaguchi et al. [6]	RA	Sx	Died 68 days after sx
Kim et al. [19]	Aorta	Sx	Died 14 months after dx
Ishigami et al. [20]	RA	Sx, rad	Well for 1.5 years
Hillock et al. [21]	RA, RCA	Sx, chemo, rad	Died 11 months after sx
Keenan et al. [22]	RA	Chemo	Well, awaiting sx at time of publication
Pinto et al. [23]	RA, pericardium	Chemo	Died 6 months following chemo
Burjonroppa et al. [24]	RA	Chemo, sx	–

Treatment is listed in the order in which it was given to the patient.
RA: right atrium; sx: surgery; chemo: chemotherapy; RV: right ventricle; rad: radiation; TV: tricuspid valve.

Literature review of patients with metastatic cardiac angiosarcoma

Author	Primary site	Metastasis	Treatment[a]	Survival
Nakamura-Horigome et al. [25]	RA, RV	Anterior mediastinum	Chemo, rad	Well after 12 months after dx
Pigott et al. [3]	RA	Lungs, pericardium, SVC	Chemo, sx	Well after 32 months after dx
Dehqanzada et al. [26]	Aorta	Duodenum	Sx, chemo	Well up to publication of paper
Juergens et al. [27]	LA, LV, MV	Liver, lungs	Sx, chemo	–
Van der Lee et al. [28]	RA, pericardium	Lungs	–	Died 10 days after admission
Ikeya et al. [29]	RA, pericardium	Brain, bone, soft tissue	Sx	Died 37 days after sx
Anderson et al. [30]	RV, LV	Liver, lungs	–	–
Kurian et al. [1]	RA	Lungs	Sx, chemo	Died
Amonkar and Deshpande [31]	RA, aorta, PA	Lung	–	Died after dx
Kodali and Seetharaman [32]	RA, RV	Anterior mediastinum	Chemo, rad	Died 16 months after dx
Deetjen et al. [33]	Mediastinum, RA, SVC	Pulmonary artery	Sx	Died 14 months after dx
Hyde et al. [4]	RA	SVC	Sx, chemo	Died 1 month after chemo
Brinckman and Van der Wouw [34]	Pericardium	RV, LV, LA, RA, descending pulmonary trunk, ascending aorta	Sx	Died after sx

Dx: diagnosis; SVC: superior vena cava; LV: left ventricle; MV: mitral valve; PA: pulmonary artery.

[a] Treatment is listed in the order in which it was given to the patient.

Many thanks